



**Missouri Department of Natural Resources  
Water Protection Program**

**Minutes  
Joint Meeting Between**

**Missouri Clean Water Commission  
And  
Missouri Safe Drinking Water Commission**

**November 3, 2004**

**Missouri Clean Water Commission  
and  
Missouri Safe Drinking Water Commission  
Joint Meeting  
November 3, 2004  
University Plaza Hotel & Convention Center  
333 John Q. Hammons Parkway  
Springfield, MO**

**Minutes**

Present

John Witherspoon, Chairman, Safe Drinking Water Commission  
Elizabeth Grove, Commissioner, Safe Drinking Water Commission  
Orville Schaefer, Commissioner, Safe Drinking Water Commission  
Charli Jo Ledgerwood, Commissioner, Safe Drinking Water Commission

Thomas A. Herrmann, Chairman, Missouri Clean Water Commission  
William A. Easley, Commissioner, Missouri Clean Water Commission  
Paul E. Hauser, Commissioner, Missouri Clean Water Commission

Cynthia Bowser, Department of Natural Resources, Jefferson City, Missouri  
Robert Brundage, Newman, Comley & Ruth, Jefferson City, Missouri  
Bill Bryan, Attorney General's Office, Jefferson City, Missouri  
Mary Bryan, Attorney General's Office, Jefferson City, Missouri  
Loring Bullard, Watershed Committee of the Ozarks, Springfield, Missouri  
David Casaletto, Table Rock Lake Water Quality, Kimberling City, Missouri  
Dick Champion, City of Independence & Urban Areas Coalition, Jefferson City, Missouri  
Jim Clemenson, USEPA, Springfield, Missouri  
Charles Collins, Department of Natural Resources, Springfield, Missouri  
Jeffrey Corbin, Macon Municipal Utilities, Macon, Missouri  
Cindy Davies, Department of Natural Resources, Springfield, Missouri  
Cindy DiStefano, Department of Conservation, Columbia, Missouri  
Robert Dunlevy, USEPA – Drinking Water, Kansas City, Kansas  
Ken Duzan, Department of Natural Resources, Jefferson City, Missouri  
Bryan Fawks, Department of Natural Resources, Jefferson City, Missouri  
Peter Goode, Department of Natural Resources, Jefferson City, Missouri  
Chuck Harwood, Department of Natural Resources, Jefferson City, Missouri  
Bob Hentges, MO Public Utility Alliance, Jefferson City, Missouri  
John Hoagland, Missouri Rural Water Assoc., Ashland, Missouri  
Jim Hull, Department of Natural Resources, Jefferson City, Missouri  
Matt Keener, Watershed Committee of the Ozarks, Springfield, Missouri  
Vern Kincheloe, Macon Municipal Utilities, Macon, Missouri  
Marlene Kirchner, Department of Natural Resources, Jefferson City, Missouri  
Carrie Lamb, City of Springfield, Springfield, Missouri

Mary Lappin, City of Kansas City, Kansas City, Missouri  
Richard Laux, Department of Natural Resources, Jefferson City, Missouri  
John Lodderhose, Metropolitan St. Louis Sewer District, St. Louis, Missouri  
Barbara Lucks, City of Springfield, Springfield, Missouri  
Randy Lyman, City of Springfield Public Works, Springfield, Missouri  
John MacEachen, Department of Natural Resources, Jefferson City, Missouri  
Linda McCarty, Department of Natural Resources, Jefferson City, Missouri  
Kevin Mohammadi, Department of Natural Resources, Jefferson City, Missouri  
Tom Moore, Tri-State Engineering, Joplin, Missouri  
Susan Myers, Metropolitan St. Louis Sewer District, St. Louis, Missouri  
Darrell Osterhoudt, Department of Natural Resources, Jefferson City, Missouri  
Bill Price, Department of Natural Resources, Jefferson City, Missouri  
Roger Rector, Macon Municipal Utilities, Macon, Missouri  
John Reece, Little Blue Valley Sewer District, Independence, Missouri  
Debi Richardson, SMSU/SMCOG, Springfield, Missouri  
Ted Salveter, City Utilities of Springfield, Springfield, Missouri  
Candy Schilling, Department of Natural Resources, Jefferson City, Missouri  
Phil Schroeder, Department of Natural Resources, Jefferson City, Missouri  
Becky Shannon, Department of Natural Resources, Jefferson City, Missouri  
Christine Smith, Independence Water Pollution Control, Independence, Missouri  
Cynthia Smith, Department of Natural Resources, Jefferson City, Missouri  
Sharon Stanley, Cape Girardeau, Missouri  
Dennis Stith, Shafer, Kline & Warren, Inc., Macon, Missouri  
Breck Summerford, Department of Natural Resources, Jefferson City, Missouri  
Scott Totten, Department of Natural Resources, Jefferson City, Missouri  
Jim Vandike, Department of Natural Resources, Rolla, Missouri  
John Watman, City of Springfield POTW, Springfield, Missouri  
Clyde Wilber, Greeley & Hansen, Upper Marlboro, Maryland  
Mary West, City of Moberly, Moberly, Missouri

#### Call to Order/Introductions

Mr. Jim Hull, Director of the Water Protection Program, Department of Natural Resources called the meeting to order at approximately 9:05 a.m. Chairman Herrmann, Clean Water Commission, introduced Commissioners Bill Easley and Paul Hauser. Commissioners Kristin Perry, Davis Minton, and Cosette Kelly were absent.

Members of the Safe Drinking Water Commission introduced themselves. Chairman John Witherspoon, Commissioner Elizabeth Grove, Commissioner Orville Schaefer, and Commissioner Charli Jo Ledgerwood. Commissioners Susan Hazelwood, H. Dwight Douglas, William Darby, and Lanny Meng were absent.

Mr. Hull introduced Mr. Bill Bryan, General Counsel to the Clean Water Commission and Ms. Marlene Kirchner, Secretary to the Clean Water Commission.

Mr. John MacEachen, Public Drinking Water Branch, Department of Natural Resources introduced Ms. Mary Bryan, General Counsel to the Safe Drinking Water Commission.

Water Quality Standards for Radionuclides - Mr. Ken Duzan, Public Drinking Water Branch, Department of Natural Resources reported on radionuclides in drinking water in Missouri. Radionuclides are radioactive elements that emit Alpha Particles, Beta Particles, Gamma Rays, and ionizing radiation. Missouri mostly deals with naturally occurring nuclides rather than man-made.

Only a few radioactive elements are regulated because most substances a person ingests passes directly through their body, while others become incorporated into various tissues. When radioactive elements are concentrated in small areas of the body, they constantly irradiate surrounding tissues.

Ionizing radiation causes damage to tissues and genetic material within cells. It is known to cause cancer at higher doses and is presumed to do so at lower doses found in drinking water.

There are several techniques for radionuclides removal: Ion exchange, point of use, reverse osmosis, lime softening, green sand filtration, co-precipitation with barium sulfate, pre-formed hydrous manganese oxide filtration, activated alumina, and enhanced coagulation/filtration.

Disposal of treatment wastes may consist of backwash from filters and ion exchange units being discharged into sanitary sewers and waters of the state, and land application of water treatment and sewage sludge. In some cases, concentrated wastes requiring disposal in a nuclear waste facility may be generated

Mr. Peter Goode, Water Pollution Control Branch, Department of Natural Resources also gave a presentation on Radionuclides: Water Quality Standards and Wastewater Discharges.

10 CSR 20-7.031(4)(I) establishes water quality standards for radioactive materials. All streams and lakes shall conform with state and federal limits for radionuclides established for drinking water supply. 10 CSR 20-7.031(4), Application of Standard, shall apply to classified waters. Protection of drinking water supply is limited to surface waters designated for raw drinking water supply and aquifers.

Application of the Standard to Permits consists of applying the standard to classified waters, recent situations have not established effluent limitations – monitoring only, permit conditions require quarterly monitoring at in stream locations, and sediment monitoring. This is the approach that is being taken from the water pollution side.

Chairman Herrmann stated he is not personally comfortable with that interpretation. He suggests further discussion on the issue at another time.

Cooperative Water Quality Efforts Between the Missouri Department of Health and Senior Services and the Missouri Department of Natural Resources – Mr. Chuck Harwood, Water Pollution Control Branch, Department of Natural Resources gave a presentation on standard operating procedures for joint compliance and enforcement activities.

One November 13, 2003, a memorandum of agreement was signed between the Department of Health and Senior Services and Department of Natural Resources. One point in the MOU was to develop standard operating procedures between both departments. It also stated that this would be done in one year.

There are two applicable rules on jurisdiction and responsibility of on-site sewage systems in Missouri. Department of Health and Senior Services, 19 CSR 20-3.060, minimum construction standards for on-site sewage disposal systems, and Department of Natural Resources, 10 CSR 20-6.030, disposal of wastewater in residential housing developments.

There is one applicable rule on jurisdiction and responsibilities for public drinking water systems in Missouri, Department of Natural Resources, 10 CSR 60, Public Drinking Water Regulations.

Mr. John MacEachen, Public Drinking Water Branch, Department of Natural Resources, reported there are so many issues of joint responsibility that they have just begun to start the process of developing standard operating procedures.

To qualify as a public water supply regulated by the Public Drinking Water Branch, a system water supply must serve 15 service connections through a constructed conveyance or serve 25 or more people for 60 or more days out of the year.

Because of the 25 people per day or the number of service connections, the PDWB has a substantial need to enter into cooperative activities with DHSS because many of the very small systems in the state are regulated by both agencies. There is not a clearly defined point of who takes the lead in regulatory activity. Both departments need to work closely together to properly educate their staff.

Mr. Harwood explained the joint activities between the Department of Health and Senior Services and Department of Natural Resources. The joint activities consist of establishing quarterly interagency coordination meetings; strengthen lines of communication and actions between both agencies and the local public health offices; establish means of agency notification for boil orders, violations, permitting issues and other emerging issues; provide for joint inspections when jurisdictions overlap; promote

regulatory cross-training for both agencies and local health departments through various educational opportunities; and coordinate on existing and proposed rules and statutes affecting the activities of both agencies and local public health departments.

Status of Groundwater in Southwest Missouri – Mr. Jim Vandike, Southwest Regional Office, Department of Natural Resources reported on the status of groundwater in Southwest Missouri. The Springfield Plateau Aquifer has an estimated storage of 4,625 billion gallons of water, yielding 5 – 20 gallons per minute. It is commonly used for private water supply except in Greene and Northern Christian counties.

The Ozark Aquifer has an estimated storage of 107,655 billion gallons of water. It is the most important public water supply aquifer in Southwest Missouri. Nearly all of the major water use in Southwest Missouri is from the Ozark aquifer.

In 1990 groundwater use reported by major water users was 12.7 billion gallons. In 2000 it was 20.3 billion gallons. In 1990-2000 the increase in groundwater use was 7.7 billion gallons.

Taney and Stone counties' major water uses are municipal, domestic water supply, and recreation. Jasper and Newton counties' major water uses are municipal, industrial, electrical generation, and irrigation. Greene and Christian counties' major water uses are industrial, municipal, and recreational water supply.

The Springfield Plateau, Ozark and St. Francois aquifers combined contain an estimated 116 trillion gallons of water. Major users in those areas report using about 21 billion gallons per year.

Update on Water Issues in Southwest Missouri – Ms. Cynthia Davies, Southwest Regional Office, Department of Natural Resources reported on groundwater quantity. All but six of the public water supplies in the region are groundwater systems. There are concerns if there is enough groundwater to meet the needs of those systems in the future. The Joplin area is currently looking into issues with declining water levels and the greater Springfield may need to do this also.

Joplin and the Springfield area have issues with declining water levels. The region as a whole has many public water systems. Of the 2,800 systems around the state, the region regulates 1,345. The vast majority of those systems are small in size and tend to have more compliance and enforcement issues.

For construction sites, the region sends staff to the sites to look at the location of new wells. They continue to work towards getting some of the smaller systems with problems combined into a regional system or push for water districts in the areas.

The biggest water quality issue the region has right now is dealing with land disturbance issues. The region has tremendous growth activity. To ensure that facilities are implementing the best management practices, they need to maintain the soil on site. Staff needs to be out there inspecting those facilities. Additional staff is needed to provide this presence and to provide a more thorough review of all storm water pollution prevention plans for these facilities.

The region has taken on some of the permitting duties from Central Office. They want to ensure that the streams are protected. They need a way to develop water quality limits for nutrients. Phosphorus and nutrients are issues because they want to keep the Ozarks and lakes beautiful. The region continues to work with Arkansas and Oklahoma on water quality issues.

Chairman Herrmann, Clean Water Commission, asked for a 2004 version of *A Census of Missouri Public Water Systems*. His last issue is dated 2000.

Chairman Witherspoon, Safe Drinking Water Commission, stated he would like to see more joint efforts on source water protection between the two Commissions. He would like to put together a workgroup to develop a program to ensure everyone is on the same page.

Respectfully submitted,

Jim Hull  
Director of Staff